



Butler University Digital Commons @ Butler University

Scholarship and Professional Work - LAS

College of Liberal Arts & Sciences

9-1998

Two Matriarchs Speak

Robert H.I. Dale

Butler University, rdale@butler.edu

Follow this and additional works at: http://digitalcommons.butler.edu/facsch_papers



Part of the [Behavior and Ethology Commons](#), [Psychology Commons](#), and the [Zoology Commons](#)

Recommended Citation

Dale RHI. (1998). Two Matriarchs Speak. *Journal of the Elephant Managers Association*. 9(3), 232-234. Available from: http://digitalcommons.butler.edu/facsch_papers/364

This Book Review is brought to you for free and open access by the College of Liberal Arts & Sciences at Digital Commons @ Butler University. It has been accepted for inclusion in Scholarship and Professional Work - LAS by an authorized administrator of Digital Commons @ Butler University. For more information, please contact fgaede@butler.edu.

Book Reviews

Two Matriarchs Speak

Poole, J. (1997), *Elephants*, Stillwater, MN, USA: Voyageur Press. ISBN 0-89658-357-0 (72 pages: U. S. \$14.95 [paper]). WorldLife Library.

Payne, K. (1998), *Silent Thunder: In the Presence of Elephants*, New York, NY: Simon & Schuster. ISBN 0-684-80108-6 (286 pages: U. S. \$25.00 [hardback]).

by Robert H. I. Dale

In this issue I have the privilege of reviewing texts by two of the most important elephant researchers of our time—Joyce Poole and Katy (Katharine) Payne. Their contrasting lives are fascinating. Dr. Poole was a child in Africa and, as she said in her autobiography *Coming of Age with Elephants*, she fell in love with the African species at an early age. She has been a field researcher, or conservation specialist, her entire adult life. Ms. Payne had an established research career investigating whale songs for 15 years before she noticed elephants vocalizing at the Washington Park Zoo in Portland, OR. In a case study of serendipity in science, Ms. Payne's extensive experience with the high-energy, low-frequency humpback whale songs and her memories of a church organ combined to make her realize that she had felt (not heard) elephants vocalizing at the zoo [by a strange coincidence, I may have recorded some of the humpback whale sounds that Ms. Payne studied while I was an hydroacoustics research apprentice in 1967]. Katy Payne has been a field researcher—studying elephants for almost 15 years. Her book, *Silent Thunder*, should be compared with Cynthia Moss' (1988) classic *Elephant Memories* and Joyce Poole's (1996) *Coming of Age with Elephants*, although her style is closer to Moss'.

Despite being a “coffee table” book, with over 40 photographs of elephants, Dr. Poole's book is filled

with basic information about elephants and their Proboscidean ancestors. Both African elephants (*Loxodonta africana*) and Asian elephants (*Elephas maximus*) are described, although most of the photographs are of African elephants. The book serves as a good general introduction to elephants for the lay reader.

As one might expect from Dr. Poole, the data in the text are accurate and current. After briefly describing a game of “catch the flip-flop” she had with a juvenile elephant, Joyce outlines her involvement with the Amboseli Elephant Research Project and her fears for the elephant's future. She then, in order, describes elephant evolution, the anatomy and physiology of both species of living elephant, feeding strategies, social structure, and sex differences. Her discussions of musth, the social organization of family units, bond groups and clans, and of vocalizations reflect her deep knowledge and personal research contributions in these areas. She describes the herd structure of family units, led by a mature female (a matriarch) and containing adult females and juveniles of both sexes, and contrasts these with the relative isolation of adult males.

Elephant vocalizations have been studied intensively for the last 10 years or so, with major contributions from both Dr. Poole and Ms. Payne. The African elephant females have a larger repertoire of vocalizations than the males: Dr. Poole claims that there are 3 rumbles (calls) used exclusively by males, 19 used exclusively by females, and 3 used by both sexes. Apparently, females have more to say, and males benefit more from listening than from “talking.” Less is known about Asian elephant vocalizations.

Dr. Poole concludes her book by discussing the interactions between elephants and humans. Asian elephants have been trained for at least 4,000 years in India, and African elephants have been trained for about 100 years at the Elephant Domestication Center in the Democratic Republic of Congo. African el-

continued on page 234

Book Reviews, from page 232

elephants are also starting to be employed by various Safari centers in several African countries. Both Asian and African elephant populations are seriously threatened by human encroachment into elephant home ranges, and by disruption of migration routes; the African elephant is (once again) threatened by ivory and trophy hunters. All in all, the impact of elephants on humans has been benign, while the impact of humans on elephants has been malignant. Human actions over the next generation will determine whether elephants survive. Dr. Poole asks us, "Do we care?"

Ms. Payne's book is a summary of some of her experiences since she recognized vocalizations by captive Asian elephants in 1984. When a senior colleague hears what she has discovered, he tells Katy, "If I were you, I wouldn't tell anybody about this yet" (p. 28). But very soon, she does. Or she, Bill Langbauer, and Elizabeth Marshall Thomas do, in an article in *Behavioral Ecology and Sociology*. Only months later, Ms. Payne is recording elephant calls with Joyce Poole in Amboseli Park, Kenya. There, Ms. Payne describes the structure of matriarchal family units and the larger bond groups; the "special privileges" allowed the calves and the relations between male elephants. She discusses musth and the nature of courting, referring to the important discoveries of Bets Rasmussen concerning the vomero-nasal organ, the "flehmen" response, and the volatile organic compounds that seem to function as pheromones. Commenting on the differing lifestyles of adult males and females, she wonders about the consciousness of elephants. She also considers the difficulties of attempting to develop a dictionary of elephant vocalizations, because the physical patterns of the sounds don't correlate reliably with the presumed functions of the calls. It is not possible to say that each sound has a particular meaning.

Ms. Payne discusses her investigations (with Bill Langbauer) of the range of elephant communication,

and her discovery that the range was largest at dusk, and much lower at midday. The studies—in Etosha Park, Namibia—indicated that elephants communicated over distances of four kilometers or so. There is a section about her visits to Namibia and the passing of her parents and of the three-year break between her last trip to Namibia and her first research in Zimbabwe. In the Sengwa Wildlife Research Area in Zimbabwe, 16 elephants were given radio-collars by a team of over 30 workers, and the vocalizations and movements of these animals were monitored. Ms. Payne collaborated in studies to determine how nearby family units could travel along common paths without maintaining visual contact. Much of the middle of the book concerns Katy's relationships with her colleagues Rowan, Russ, Andrew and Zaccheus. Unfortunately, some of the familiar elephants were culled. Ms. Payne writes their obituaries.

Katy returns to Sengwa for one last project, a study of the use of water holes and well-digging by the elephants, wondering how the elephants know where to dig (a still-unanswered question). She ends the book by expressing her concern over culling and poaching. She suggests, as did Rowan Martin and Iain Douglas-Hamilton before her, that allowing the elephants to die naturally, while scavenging their tusks would, over the long run, profit both humans and elephants.

Taken together, the books by Joyce Poole and Katy Payne reveal something about the natures of both elephants and humans. It appears that we see our reflections in the lives of the elephants.

References

Moss, C. (1988), *Elephant Memories: Thirteen Years in the Life of an Elephant Family*, New York: Fawcett Columbine.

Poole, J. (1996), *Coming of Age with Elephants: A Memoir*, New York: Hyperion.